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EXAMINER

SALL, EL HADJI MALICK

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/823,190	<b>Applicant(s)</b> CIHULA, JOSEPH F.	
	<b>Examiner</b> El Hadji M. Sall	<b>Art Unit</b> 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is responsive to the correspondence filed on August 29, 2005. No claims has been amended, canceled, added, or withdrawn. Claims 1-30 are pending. Claims 1-30 represent network-aware policy deployment.

2. ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 8, 9, 11, 13-17, 20, 21, 23, and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Raab et al. U.S. 5,751,967.

Raab teaches the invention as claimed including method and apparatus for automatically configuring a network device to support a virtual network (see abstract).

As to claim 1, Raab teaches a policy management tool of a system comprising:  
dynamic network information to model a physical configuration of a network and to detect a change in the physical configuration of the network(column 6, lines 30-44);  
and

a policy manager to deploy at least one policy to a set of devices in the network in response to the detected change in physical configuration of the network (column 6, lines 38-43; column 2, lines 19-22, Raab discloses a configuration policy circuit is provided to reconfigure devices upon modification of the topology (i.e. policy is open-ended and therefore broadly interpreted)).

As to claims 2, Raab teaches the tool of the system of claim 1 wherein the policy manager comprises a policy to restrict certain types of traffic at multiple points within the network via a topology-based analysis of the network (figure 7, item 706; figure 5; column 9, lines 26-30, Raab discloses field 506 in figure 5 specifies whether members matching this policy are allowed as other members specified by the policy (i.e. "restricting certain types of traffic")).

As to claim 3, Raab teaches the tool of the system of claim 1 wherein the policy manager comprises a policy to queue, buffer, or prioritize certain types of traffic at

multiple points within the network based on an analysis of traffic found on various portions of the network (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 4, Raab teaches the tool of the system of claims 1 wherein the policy manager comprises a policy to prioritize traffic, wherein the policy automatically selects the prioritization mechanism based on the protocol and/or media the traffic traverses (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 8, Raab teaches the tool of the system of claim 1 wherein the policy manager creates access control lists to control traffic through edge devices in the network based on a topology analysis of the network (column 6, lines 10-20, Raab discloses a network manager (i.e. "the policy manager") may specify that all end-stations having predetermined media access control address within a specified range are member of the same VLAN).

As to claim 9, Raab teaches the tool of the system of claim 1 wherein the dynamic network information comprises a network topology, network statistical information, or network traffic information (column 6, lines 24-27, Raab discloses displaying the physical configuration of the network (topology));

As to claim 11, Raab teaches the tool of the system of claim 1 wherein the policy manager comprises a policy to selectively configure a set of devices based on an analysis of the traffic processed by the set of devices (column 7, lines 43-52).

As to claim 13, Raab teaches a method, comprising:

applying dynamic network information to a policy manager by:

modeling a physical configuration of a network (column 6, lines 24-27, Raab discloses displaying the physical configuration of the network (topology)); and

detecting a change in the physical configuration of the network (column 6, lines 30-44); and

mapping a policy to a set of devices in the network based on the detected change in the physical configuration of the network (column 6, lines 38-43; column 2, lines 19-22, Raab discloses a configuration policy circuit is provided to reconfigure devices upon modification of the topology (i.e. policy is open-ended and therefore broadly interpreted)).

As to claim 14, Raab teaches the method of claim 1 wherein the policy manager comprises a policy to restrict certain types of traffic at multiple points within the network via a topology-based analysis of the network (figure 7, item 706; figure 5; column 9, lines 26-30, Raab discloses field 506 in figure 5 specifies whether members matching this policy are allowed as other members specified by the policy (i.e. "restricting certain types of traffic")).

As to claim 15, Raab teaches the method of claim 13 wherein the policy manager comprises a policy to queue, buffer, or prioritize certain types of traffic at multiple points within the network based on an analysis of traffic found on various portions of the network (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 16, Raab teaches the method of claim 13 wherein the policy manager comprises a policy to queue traffic in devices in the network based on priority (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 17, Raab teaches the method of claims 13 wherein the policy manager comprises a policy to prioritize traffic, wherein the policy automatically selects the prioritization mechanism based on the protocol and/or media the traffic traverses (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 20, Raab teaches the tool and the method of claims 1 and 13 wherein the policy manager creates access control lists to control traffic through edge devices in the network based on a topology analysis of the network (column 6, lines 10-20, Raab discloses a network manager (i.e. "the policy manager") may specify that all end-stations having predetermined media access control address within a specified range are member of the same VLAN).

As to claim 21, Raab teaches the tool and the method of claims 1 and 13 wherein the dynamic network information comprises a network topology, network statistical information, or network traffic information (column 6, lines 24-27, Raab discloses displaying the physical configuration of the network (topology));

As to claim 23, Raab teaches the method of claim 13 wherein the policy manager comprises a policy to selectively configure a set of devices based on traffic to the set of devices (column 7, lines 43-52).

As to claim 16, Raab teaches the method of claim 13 wherein the policy manager comprises a policy to queue traffic in devices in the network based on priority (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claims 25, Raab teaches an article of manufacture in a system comprising:  
A machine-readable medium having stored thereon instructions for causing a processor to:

Model a topology of a network (column 6, lines 24-27, Raab discloses displaying the physical configuration of the network (topology));

Detect a change in the topology of the network (column 11, lines 43-46);

Apply dynamic network information including the change in the topology of the network to a policy manager (column 6, lines 30-44; column 11, lines 43-46); and



Map a policy to a set of devices in the network based on the detected change in the topology of the network (column 6, lines 38-43; column 2, lines 19-22, Raab discloses a configuration policy circuit is provided to reconfigure devices upon modification of the topology (i.e. policy is open-ended and therefore broadly interpreted)).

As to claim 26, Raab teaches the article of manufacture in the system of claim 25 wherein the instructions are further to cause the processor to apply a policy to restrict certain types of traffic at multiple points within the network via a topology-based analysis of the network (figure 7, item 706; figure 5; column 9, lines 26-30, Raab discloses field 506 in figure 5 specifies whether members matching this policy are allowed as other members specified by the policy (i.e. "restricting certain types of traffic"))).

As to claim 27, Raab teaches the article of manufacture in the system of claim 25 wherein the instructions are further to cause the processor to apply a policy to queue traffic in devices in the network based on priority (figure 7, item 707; figure 5; column 9, lines 36-45).

As to claim 28, Raab teaches the article of manufacture in the system of claim 25 wherein the instructions are further to cause the processor to apply a policy to tag or

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prioritize traffic in the network based on type of traffic (figure 7, item 707; figure 5; column 9, lines 36-45).

**4. *Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 6, 10, 18, 19, 22, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raab et al. U.S. 5,751,967 in view of Craddock U.S. 6,351,771.

Raab teaches the invention substantially as claimed including method and apparatus for automatically configuring a network device to support a virtual network (see abstract).

As to claims 5, 18 and 29, Raab teaches the tool of the system, the method and the article of manufacture in the system of claims 1, 13 and 25.

Raab fails to teach explicitly a policy to monitor response time of content transfer between one or more primary servers and a device in the network and replicate content of the primary servers to at least one other server when the content time of a primary server exceeds a predetermined metric.

However, Craddock teaches distributed service network system capable of transparently converting data formats and selectively connecting to an appropriate bridge in accordance with clients characteristics identified during preliminary connections. Craddock teaches a policy to monitor response time of content transfer between one or more primary servers and a device in the network and replicate content of the primary servers to at least one other server when the content time of a primary server exceeds a predetermined metric (column 6, lines 5-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Raab in view of Craddock to provide a policy to monitor response time of content transfer between one or more primary servers and a device in the network and replicate content of the primary servers to at least one other server when the content time of a primary server exceeds a predetermined metric. One would be motivated to do so to provide better performance achievement through distributing file read operations among file system replicas.

As to claims 6, 19 and 30, Raab teaches the tool of the system, the method and the article of manufacture of claims 1, 13 and 25 wherein the policy manager comprises a policy to monitor the performance of one of more servers (column 6, lines 32-35).

Raab fails to teach explicitly replicate content of the primary servers to at least one other server when the performance metrics of a primary server exceeds a predetermined value.

However, Craddock teaches replicate content of the primary servers to at least one other server when the performance metrics of a primary server exceeds a predetermined value (column 6, lines 5-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Raab in view of Craddock to provide the policy manager comprises a policy to monitor the performance of one or more primary servers and replicate content of the primary servers to at least one other server when the performance metrics of a primary server exceeds a predetermined value. One would be motivated to do so to provide better performance achievement through distributing file read operations among file system replicas.

As to claims 10 and 22, Raab teaches the tool of the system and the method of claims 1 and 13.

Raab fails to teach explicitly a policy to replicate content of a first device to a second device when the content response time of the first device exceeds a predetermined metric.

However, Craddock teaches a policy to replicate content of a first device to a second device when the content response time of the first device exceeds a predetermined metric (column 6, lines 5-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Raab in view of Craddock to create a policy to replicate content of a first device to a second device when the content response time of the first device exceeds a predetermined metric. One would be motivated to do so that better performance can be achieved through distributing file read operations among file system replicas.

6. Claims 7, 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raab et al. U.S. 5,751,967 in view of Chung et al. U.S. 6,266,781.

Raab teaches the invention substantially as claimed including method and apparatus for automatically configuring a network device to support a virtual network (see abstract).

As to claim 7, Raab teaches the tool of the system of claim 1.

Raab fails to teach explicitly the policy manager comprises a policy to monitor the health of one or more primary servers in the network, to replicate content of the primary servers to at least one other server when a primary server experiences a fault, and to configure the other server to emulate the primary server.

However, Chung teaches method and apparatus for providing failure detection and recovery with predetermined replication style for distributed applications in a network. Chung teaches a policy to monitor the health of one or more primary servers in the network, to replicate content of the primary servers to at least one other server when a primary server experiences a fault, and to configure the other server to emulate the primary server (column 3, lines 16-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Raab in view of Chung to create a policy to monitor the health of one or more primary servers in the network, to replicate content of the primary servers to at least one other server when a primary server experiences a fault, and to configure the other server to emulate the primary server. One would be motivated to do so to allow each application module running on that host computer is individually failure-protected in accordance with its registered replication style and degree of replication (see abstract).

As to claims 12 and 24, Raab teaches the tool of the system and the method of claims 1 and 13.

Raab fails to teach a policy to replicate content of a first device to a second device when the first device experiences a fault and to configure the second device to emulate the first device.

However, Chung teaches a policy to replicate content of a first device to a second device when the first device experiences a fault and to configure the second device to emulate the first device (column 3, lines 16-29).

It would be obvious to one of ordinary skill in the art at the time of the invention to modify Raab in view of Chung to create a policy to replicate content of a first device to a second device when the first device experiences a fault and to configure the second device to emulate the first device. One would be motivated to do so to allow each application module running on that host computer is individually failure-protected in accordance with its registered replication style and degree of replication (see abstract).

## **7. *Response to Arguments***

Applicant's arguments filed on August 29, 2005 with respect to claim 1-30 have been considered but are not persuasive.

(A) Applicant argues that the language the Examiner is asserting that Raab teaches is not in the claim 1. For example, "a policy manager couples to the model to manage deployment of at least one policy to a set of devices in a network based on the dynamic network information" is not in claim 1. Thus, even if the Examiner is correct in

the assertion of what Raab teaches, that language is not recited in claim 1. Therefore, the Examiner has not properly applied Raab to claim 13 by asserting that Raab teaches language that is not recited in claim 13.

In response to the Applicant arguments, the Examiner applied the cited reference of Raab to the amended claims files on August 29, 2005. However, the Office Action incorrectly referred to pre-amended claims. The Office Action was a new Non-Final Office Action that explains the reasoning for rejecting the claims in view of Raab. Therefore, the rejection remains as such.

(B) Applicant argues that Raab does not teach "a policy manager to deploy at least one policy to a set of devices in the network in response to the detected change in physical configuration of the network" as recited in claim 1.

In regards to point (B), examiner respectfully disagrees.

In response to applicant's argument, Raab teaches the above features in the following columns and lines: Column 2, lines 15-23; Column 6, lines 38-43; column 2, lines 19-22, Raab discloses a configuration policy circuit is provided to reconfigure devices upon modification of the topology. Policy is open-ended and therefore broadly interpreted.



**8. Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4010.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

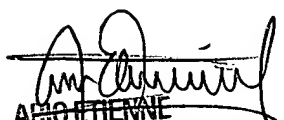
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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall

Patent Examiner

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